

Title (en)

RESERVING SPATIAL LIGHT MODULATOR SECTIONS TO ADDRESS FIELD NON-UNIFORMITIES

Title (de)

RESERVIERUNG RÄUMLICHER LICHTMODULATORABSCHNITTE ZUR HANDHABUNG VON FELDUNGLEICHFÖRMIGKEITEN

Title (fr)

RÉSERVATION DE SECTIONS DE MODULATEUR SPATIAL DE LUMIÈRE POUR REMÉDIER AUX NON-UNIFORMITÉS DE CHAMP

Publication

EP 3844570 A1 20210707 (EN)

Application

EP 19855822 A 20190702

Priority

- US 201816116126 A 20180829
- US 2019040308 W 20190702

Abstract (en)

[origin: US10503076B1] Embodiments of the present disclosure generally provide improved photolithography systems and methods using a digital micromirror device (DMD). The DMD comprises columns and rows of micromirrors disposed opposite a substrate. Light beams reflect off the micromirrors onto the substrate, resulting in a patterned substrate. Certain subsets of the columns and rows of micromirrors may be positioned to the "off" position, such that they dump light, in order to correct for uniformity errors, i.e., features larger than desired, in the patterned substrate. Similarly, certain subsets of the columns and rows of micromirrors may be defaulted to the "off" position and selectively allowed to return to their programmed position in order to correct for uniformity errors, i.e., features smaller than desired, in the patterned substrate.

IPC 8 full level

G03F 7/20 (2006.01); **H01L 21/027** (2006.01)

CPC (source: EP KR US)

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G03F 7/70116 (2013.01 - KR); **G03F 7/70291** (2013.01 - EP); **G03F 7/70358** (2013.01 - KR US); **G03F 7/70391** (2013.01 - US);
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Designated extension state (EPC)

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JP 2021536587 A 20211227; JP 2023106400 A 20230801; JP 7271655 B2 20230511; KR 102582575 B1 20230926;
KR 20210039500 A 20210409; TW 202013061 A 20200401; TW 202119122 A 20210516; TW I725515 B 20210421; TW I785368 B 20221201;
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